

## AMENDMENTS TO THE CLAIMS

Please amend claims 1, 9 and 17, and add new claim 22, as set forth in the listing of claims that follows:

(insert listing of amended claims)

1. (Currently Amended) A method for providing close range truck detection for a motor vehicle, comprising the steps of:

~~determining~~ measuring an initial range from a motor vehicle to a target located in front of said motor vehicle;

measuring an initial range rate between the motor vehicle and the target;

determining whether ~~a~~ the initial range rate ~~of~~ between the motor vehicle and the target is ~~above~~ a positive value exceeding a predetermined rate;

subsequently measuring a current range from the motor vehicle to the target;

measuring a current range rate between the motor vehicle and the target;

determining whether the initial range to the target is less than a current range to the target when the range rate to the target ~~is not~~ remains above the predetermined rate; and

providing ~~an adjusted range~~ a downwardly stepped range adjustment when the initial range to the target is less than the current range to the target and the range rate ~~is below~~ remains above the predetermined rate, wherein the adjusted range is utilized to control operation of the motor vehicle.

2. (Original) The method of claim 1, further comprising the step of:

adding a predetermined offset to the adjusted range when the range rate is above a predetermined target rate.

3. (Original) The method of claim 1, wherein the adjusted range is provided by subtracting a predetermined offset from the current range, and wherein the predetermined offset is about 5 meters.

4. (Original) The method of claim 3, wherein the predetermined offset is only subtracted from the current range when the current range is less than about 20 meters.

5. (Original) The method of claim 1, wherein the adjusted range is provided when a sign of a calculated range rate that is based on a differentiated range does not match a sign of a sensor provided range rate, and wherein the predetermined rate is about 0.0 meters per second.

6. (Original) The method of claim 1, further comprising the step of:

providing an alarm when the adjusted range is less than a desired minimum distance.

7. (Original) The method of claim 1, wherein the operation of the motor vehicle is controlled by initiating deceleration by a throttle subsystem of the motor vehicle.

8. (Original) The method of claim 7, wherein the operation of the

motor vehicle is also controlled by initiating braking by a brake subsystem of the motor vehicle.

9. (Currently Amended) An automotive system for providing close range truck detection for a motor vehicle, comprising:

a processor;

a range sensor coupled to the processor; and

a memory subsystem coupled to the processor, the memory subsystem storing code that when executed by the processor instructs the processor to perform the steps of:

~~determining~~ measuring an initial range from a motor vehicle to a target located in front of said motor vehicle;

measuring an initial range rate between the motor vehicle and the target;

determining whether ~~a~~ the initial range rate ~~of~~ between the motor vehicle and the target is ~~above~~ a positive value exceeding a predetermined rate;

subsequently measuring a current range from the motor vehicle to the target;

measuring a current range rate between the motor vehicle and the target;

determining whether the initial range to the target is less than ~~a~~ the current range to the target when the range rate to the target ~~is not~~ remains above the predetermined rate; and

providing ~~an adjusted range~~ a downwardly stepped range adjustment when the initial range to the target is less than the current range to the target and the range rate ~~is below~~ remains above the predetermined rate, wherein the adjusted

range is utilized to control operation of the motor vehicle.

10. (Original) The system of claim 9, wherein the code when executed by the processor instructs the processor to perform the additional step of:  
adding a predetermined offset to the adjusted range when the range rate is increasing above a predetermined target rate.

11. (Original) The system of claim 9, wherein the adjusted range is provided by subtracting a predetermined offset from the current range, and wherein the predetermined offset is about 5 meters.

12. (Original) The system of claim 11, wherein the predetermined offset is only subtracted from the current range when the current range is less than about 20 meters.

13. (Original) The system of claim 9, wherein the predetermined rate is about 0.5 meters per second.

14. (Original) The system of claim 9, further comprising:  
an alarm coupled to the processor, wherein the code when executed by the processor instructs the processor to perform the additional step of:  
activating the alarm when the adjusted range is less than a desired minimum distance.

15. (Original) The system of claim 9, further comprising:  
a throttle subsystem coupled to the processor, wherein the operation of the

motor vehicle is controlled by initiating deceleration by the throttle subsystem.

16. (Original) The system of claim 15, further comprising:  
a brake subsystem coupled to the processor, wherein the operation of the motor vehicle is also controlled by initiating braking by the brake subsystem.

17. (Currently Amended) An automotive system for providing close range truck detection for a motor vehicle, comprising:

a processor;

a range sensor coupled to the processor;

a memory subsystem coupled to the processor, the memory subsystem storing code that when executed by the processor instructs the processor to perform the steps of:

~~determining~~ measuring an initial range from a motor vehicle to an object located in front of said motor vehicle;

measuring an initial range rate between the motor vehicle and the object;

determining whether the object is a valid target;

determining whether a range rate of the valid target is a positive value exceeding above a predetermined rate;

~~subsequently measuring a current range from the motor vehicle to the target;~~

measuring a current range rate between the motor vehicle and the target;

determining whether the initial range to the valid target is less than ~~a~~ the current range to the valid target when the range rate to the valid target ~~is not~~ remains

above the predetermined rate; and

subtracting a predetermined offset from the current range to provide an adjusted range when the initial range to the valid target is less than the current range to the valid target and the range rate ~~is below~~ remains above the predetermined rate, wherein the adjusted range is utilized to control operation of the motor vehicle; and

a throttle subsystem coupled to the processor, wherein the operation of the motor vehicle is controlled by initiating deceleration by the throttle subsystem.

18. (Original) The system of claim 17, wherein the code when executed by the processor instructs the processor to perform the additional step of:

adding the predetermined offset to the adjusted range when the range rate is increasing above a predetermined target rate.

19. (Original) The system of claim 17, wherein the predetermined offset is about 5 meters and the predetermined rate is about 0.5 meters per second, and wherein the step of subtracting the predetermined offset from the current range to provide the adjusted range when the initial range to the valid target is less than the current range to the valid target and the range rate is below the predetermined rate is only performed when the current range is less than about 20 meters.

20. (Original) The system of claim 17, further comprising:  
an alarm coupled to the processor, wherein the code when executed by the processor instructs the processor to perform the additional step of:

activating the alarm when the adjusted range is less than a desired minimum distance.

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21. (Original) The system of claim 20, further comprising:  
a brake subsystem coupled to the processor, wherein the code when  
executed by the processor instructs the processor to perform the additional step of:  
initiating braking by the brake subsystem when the adjusted range is less  
than the desired minimum distance.

22. (New) A method for providing close range detection of rear surfaces of a truck characterized by a primary reflective surface defined by a truck body component and a secondary reflective surface defined by an undercarriage of said truck offset forwardly of said primary reflective surface by a predetermined dimension, said method comprising the steps of:

periodically measuring range from a trailing motor vehicle to a rear surface of a target truck;

periodically measuring a range rate between the motor vehicle and the target truck;

determining when the sensed range between successive measurements reflects an increase in spacing between the motor vehicle and target truck and, simultaneously, the sensed range rate between said successive measurements reflects continued closure between the motor vehicle and target truck; and

adjusting the most recently measured range value by adding a range adjustment factor substantially equaling the predetermined offset, wherein the adjusted range is utilized to control operation of the motor vehicle.